Product Listing Specifications

PLS-05004

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Initial Listing	Re-Approved
August, 1998	January, 2007

Listed Product

F-2100 Two-Part Polyurethane Structural Adhesive

Listed For

***ITW* TACC Polyurethane Center**
195 DeMille
Lapeer, MI 48446

Approved Manufacturer

***ITW* TACC Polyurethane Center**
195 DeMille
Lapeer, MI 48446

Progressive Engineering Inc. is an accredited Testing Laboratory and Third Party Quality Control Agency. This Product Listing Specification represents a product that Pei has a follow-up service agreement with. This Product Listing Specification in no way implies warranty for this product or relieves ITW Foamseal of their liabilities for this product. Pei is accredited to comply with ISO Standard 17020 and 17025. This PLS is an official document if it is within one year of the initial or renewal date.

Listing Details

F-2100 adhesive is used to attach gypsum board to nominal lumber framing in walls and ceilings without the use of mechanical fasteners.

Product Description

F-2100 is a two-part polyurethane structural adhesive system. It is applied by pumping two components at a 1 to 1 volumetric ratio under pressure through heating equipment to produce one continuous bead. The two components are an "A ISO" and a "B Resin". The A ISO is a purchased material and the B Resin is manufactured by ITW Tacc.

Containers and Storage

The A & B components are shipped in 330 gallon caged totes or in 55 gallon steel drums. Storage of these containers should be in an indoor dry place between 65^0F. and 95^0F. Unopened containers will have a storage life of up to six months in these conditions.

General Product Use

The gypsum board being used shall meet ASTM C 1396. The lumber is to be kiln dried and graded. Both substrate surfaces shall be clean, dry and free of dust, ice and loose particles and shall have a surface temperature between 50^0F. and 105^0F. F-2100 adhesive should be applied in an ambient temperature range of 50^0F. to 105^0 F.The adhesive is applied along the inspection of the gypsum and the lumber according to ***ITW* TACC**'s application instructions. The adhesive temperature at the heater block should be between 100^0F. and 115^0F. After the last bead is applied, the structure shall not be moved for a minimum of two minutes. The structure should stay in the same ambient conditions for the first 24 hours.

F-2100 adhesive can be used on 24" and 16"o.c. framing in the walls and ceiling. The fillet beads produced should measure a **minimum** of 1" average on the gypsum and 3/4" average on the framing. A bead should never be greater than 3" in size. The adhesive beads are applied along one side of field framing and along both sides at gypsum seams

Listing Criteria

1. The F-2100 adhesive shall be installed according to ***ITW* TACC**'s application instructions. A copy of these instructions must be made easily available at the assembly areas.

2. This Listing is for F-2100 to be applied in an indoor manufacturing facility and is not meant to be applied in an outdoor uncontrolled environment.
3. F-2100 adhesive is to be manufactured at the ***ITW*** **TACC** plant in Lapeer, MI following their approved Q.C. program with unannounced inspections by Progressive Engineering Inc.
4. The use of F-2100 adhesive in a fire rated assembly is not addressed in this Listing
5. A vapor barrier cannot be used between the adhesive and the substrates.
6. F2100 is to be applied to the back side standard raw gypsum and is not intended for other gypsums such as foil backed, moisture resistant or water resistant gypsums.
7. Construction of assemblies using F-2100 and their design values should be as described in the following test reports.

Building Code Compliance

2003 International Building Code(IBC)	1997 Uniform Building Code	2006 IBC
2003 International Residential Code(IRC)	1999 Standard Building Code	
1999 BOCA National Building Code	2006 IRC	

Tested to

Pei Standard No. 89-1	***Pei*** Standard No. 94-9	ASTM C 557
Pei Standard No. 93-7	***Pei*** Standard No. 94-12	UL 723
Pei Standard No. 93-8	ASTM E 72	UL 1715

Product Documentation

A MSDS sheet fro F-2100A - Dated 5/17/2005
A MSDS sheet fro F-2100B - Dated 5/17/2005
F-2100LV Guidelines for Use, Application & Safe Handling - Dated December, 2003
A follow-up Listing & Inspection agreement between ***Progressive Engineering*** & ***ITW*** **TACC Polyurethane Center**

Opinion Letters dated:	9/14/1992	8/18/1994	8/17/2000
	8/26/1993	1/21/1997	10/31/2000
	12/6/1993	2/1/1999	2/28/2006

The following is a list of test reports for F-2100 Adhesive.

1987-1098	1991-1874E	1993-1036	1995-0844B	1997-1200E	2000-2193
1991-1752A	1991-1890B	1993-1038	1995-1470A	1997-1200C	
1991-1752B	1991-1890C	1993-1066	1995-1470B	1997-2296A	
1991-1752C	1991-1890D	1993-1068	1995-1594	1997-2296B	
1991-1752D	1991-1890E	1993-1070	1996-1420A	1999-0558	
1991-1752E	1991-2094A	1993-1072	1996-1420B	1999-2084	
1991-1874A	1992-0596	1994-0388	1996-1420C	1999-2086	
1991-1874B	1992-0598A	1994-0764	1996-1630	1999-2908	
1991-1874C	1992-0598B	1994-1260	1997-0640	2000-0288A	
1991-1874D	1992-0598C	1994-1650	1997-1200A	2000-0288B	

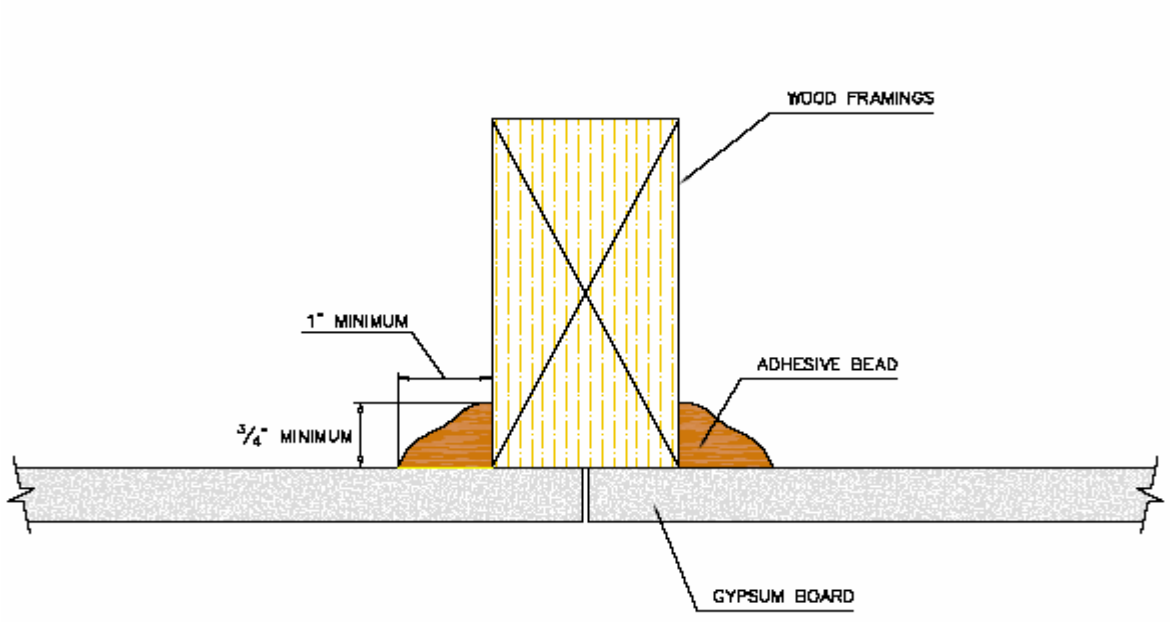
Design Values

Ceiling Diaphragm Design Load = **180 plf** (11'-9" minimum width x 48ft. Maximum diaphragm span)
Ceiling Dead Load Resistance = **12 psf**

Product Labeling

Each container shipped of F-2100 that is covered by this PLS must have a label attached with at least the following information:

1. ***ITW*** **TACC**'s name and address.
2. Date of manufacture
3. Shelf life information
4. This PLS number & Pei's logo
5. Smoke and Flame Spread Ratings
6. Component name



Two Component Urethane Adhesive

55 Gallon Steel Drums

F2100 ISO NT Black Tote

F2100 Resin NT Blue Tote